

The Controversy of Consciousness

by David and Alex Bennet

Introduction

The host of the upcoming show prepares, sitting quietly while mentally probing the boundaries of his four guests, attempting to build an understanding of their opposing viewpoints in preparation for the dialogue to come. Harry knows that each of his guests is not only highly knowledgeable in their field, but has a broad perspective of current research underway. That should prove beneficial to the interaction.

Harry rises as his first guest, Sy, strides across the stage to join him on the set. Sy is a cognitive psychologist currently doing research in the fundamental characteristics of the mind through the analysis of neuro-network modeling and observing mental phenomena such as problem solving, blind spots, and altered states of consciousness. Sy and the host are shaking hands as the other three guests come across the stage. Phil leads the way. Phil is a philosopher who for many years has been studying the mind-body problem and its ontological and epistemological consequences. Immediately behind Phil is Sophia, a nationally known spiritualist whose current work is concerned with universal consciousness and the rising tide of social consciousness. Last on the set is Neil, a neuroscientist working in neural research to better understand the mind through the “hard problem” of consciousness, that is, trying to explain how neurons in the brain can create the personal experience of consciousness and thoughts of the mind.

What is Consciousness?

Harry and his guests sit in a semicircle. The stage is set; the show begins. Harry kicks off the discussion by suggesting they consider defining the topic to build a common framework for exchange.

[Harry speaks.] The first thing we want to consider is what we mean by consciousness. Before calling on our distinguished guests, let's consult our old friend Webster.

[Harry picks up *Webster's Encyclopedic Unabridged Dictionary of the English Language* and reads from page 311.] Consciousness: A state of being conscious; awareness of one's own existence, sensations, thoughts, surroundings, etc. (2) The thoughts and feelings, collectively, of an individual or of an aggregate of people: *The moral consciousness of a nation*. (3) Full activity of the mind and senses: *To regain consciousness after fainting*. (4) Awareness of something for what it is: *Consciousness of wrong doing*. (Webster, 1996, p. 311) While Webster provides several interpretations of the meaning of consciousness, I understand there are many more. In fact, when the linguist Jackendoff and the philosopher Ned Block researched how people who write on the subject of consciousness use the term, they concluded that the word consciousness is used in so many ways that it becomes impossible to determine what each writer is talking about. (Gazzaniga, et al, 1998, p. 531-532) With that beginning, we turn to our guests for their knowledge and views. Sy, what does consciousness mean to the psychologist?

[Sy answers.] To lay the groundwork, let's go back to the most famous psychologist of all, William James. He said:

I believe that consciousness, when once it has evaporated to this state of pure diaphaneity, is on the point of disappearing altogether. It is the name

of a non-entity, and has no right to a place among first principles ... let me immediately explain that I mean only to deny that the word stands for an entity, but to insist most emphatically that it does stand for a function. ... That function is knowing. 'Consciousness' is supposed necessary to explain the fact that things not only are but get reported, or known. (McDermott, 1977, pp. 169-170)

Thus, consciousness is not a thing, but a function, a process of knowing. Certainly from the psychologist's viewpoint, function is a useful characterization in terms of how we approach the analysis and research of consciousness.

In practice, we think in terms of properties or functions associated with either consciousness or unconsciousness. Examples would be explicit cognition, recalled memories, current images, voluntary control, and control processes. In fact, the cognitive psychologist Bernard Baars has identified 25 polar pairs of terms used in contemporary psychology that relate consciousness versus unconsciousness. (Baars, 1997, p. 5) Thus many psychologists (myself included) take a pragmatic approach probably derived from the years of Watson and Skinner's behaviorist influence that prevented us from considering any aspect of the mind inside the skin. [There are chuckles.] As an aside, it is interesting to note that it is only since about 1950 that Psychology has been interested in seriously understanding the mind and the brain.

[Harry smiles.] If Psychology has been studying the mind-brain problem for 50 years, how long has Neuroscience been working on the problem? Let's hear from Neil, our neuroscientist.

[Neil speaks.] We've only focused on it seriously for about the last 15 years, but we're making some headway. As you pointed out, Harry, there are multiple interpretations of consciousness, and we in the scientific community have several versions ourselves. I'd like to start with one put forth by the physiologist J. Allan

Hobson. He considers the simple definition of consciousness to be awareness ... awareness of the world, the body and the self. (Hobson, 1999, p. 2) In a sense, consciousness is the sensitivity to outside stimuli as translated through the brain and neuron connections into patterns that to the mind represent thoughts. Hobson also defines the mind in terms of the information stored in the brain. (Hobson, 1999, p. 33)

[Sy nods agreement and comments.] We in the field of psychology are very interested in studying the ways an individual can become aware, whether it be drug-induced or self-induced or externally induced by the environment.

[Neil smiles.] I'm sure we'll talk more about that topic later in the show. [He clears his throat and continues.] Consciousness is a particular set of synaptic levels scattered throughout the body, although usually considered to be located in the brain. As with the mental state, these states of neuronal connections are driven by external stimuli such as light, smell, touch, as well as the resultant patterns interacting with other neuronal patterns in the body, such as memory, emotions, and specific chemical/physiological states. A person perceives the individual physiological states of the neurons as awareness or self-awareness, and thus consciousness is "graded in its intensity, ranging from absent through partial to full according to many factors, including species, age, and time of day." (Hobson, 1999, p. 13) As long ago as 1890, the pioneering psychologist William James (who I mentioned earlier) understood that it is the brain, with its billions of neural elements, that mediates the conscious states that integrate an experiential world of infinite complexity. Now, physically, consciousness can be divided into three parts: the first is the ever-changing part that is normal awareness and/or self-awareness. The second is the larger part, what we generally call the unconscious, that stores a great amount of

information and knowledge, much of which can be made conscious. The third part is the nonconscious brain, and that can never be made conscious. The nonconscious brain is highly adaptable and automatic. It includes the autonomic system and creates reactions in moments of extreme demand, such as threat of danger, without conscious awareness. “This part of the mind includes what some call intuition, a sixth sense, a feeling in my bones. The emotional tinge that all these terms connote, of course, may color the content of all three levels of consciousness.” (Hobson, 1999, p. 39)

There are really only two very basic facts to grasp about neurons. First, scientists are confident that brain cells contain no magic property that might be a candidate for consciousness. Neurons differ from other cells in the body only in that they can generate electrical signals. Second, and this is relevant here, the transient changes in the electrical signals of brain cells. “Serving as the gatekeepers of consciousness, the reticular formations sort out the hundred million impulses that assault the brain every second, separating the important from the inconsequential. The brain does not need a constant report of exactly how your shoes feel upon your feet; therefore, only about 100 impulses per second are permitted through to the regions above the brain stem. Of these, the conscious mind heeds but a few.” (Clark, 1999, p. 233)

[Neil pauses, but before anyone speaks he quickly continues.] Another way of looking at consciousness is to consider two levels: a primary consciousness and a higher order consciousness. Primary consciousness is basic awareness or the ability to construct a mental scene of what’s going on around the individual or the animal. But it does not include symbolic capabilities or true language as we humans now know it. Higher order consciousness, which only humans seem to have and is built upon the existence of

primary consciousness, is accompanied by a sense of the self, the ability to create past and future scenarios, and a symbolic and linguistic capability.

After 15 years of studying consciousness, the Nobel Laureat Physiologist Gerald Edelman considers consciousness as a process of the flow of thoughts, images, feelings and emotions. (Edelman and Tononi, 2000, p. 102) As you can see from these two researchers, there are still significant differences in the interpretation of what consciousness means and even what it is.

[Phil, sitting on the edge of his chair, jumps in.] Thanks, Neil. First, let me note that philosophy has been concerned with the mind-body problem at least since the days of Socrates and Aristotle, and of course the problem emerged again in the 17th century with Decarte's thinking and writing. So for 2500 years we philosophers have been trying to figure consciousness out and there are many interpretations. We have yet to reach anywhere near agreement. However, the contemporary philosopher David Chalmers has divided the field of consciousness research into two basic categories considered the easy and the hard problems of consciousness. The easy problem, although not really easy, is the purely objective research to understand the operation of the brain. The hard problem is one of connecting the operation of the brain with the subjective experience of the individual. Thus, however we define consciousness, we will likely not be able to explain why conscious states feel a certain way. Science can tell us a lot about the brain [he nods to Neil], but it remains to be seen if it can explain our personal, subjective experiences.

[Neil takes the nod as an invitation to jump in.] Yes, Phil, I'm familiar with Chalmer's work. An important point to note is that the separation between primary and higher order consciousness is in fact a continuum and not a clear categorical separation.

The Neo Darwinian theory of evolution and its empirical evidence clearly indicates a continuous evolution of the brain through various species, as noted in Charles Hampton-Turner's book *Maps of the Mind*. (Hampton-Turner, 20 , p. 72-98) Lower animals such as crocodiles are certainly aware of their surroundings but we have no evidence that they are self-aware or that they plan ahead.

[There is a pause, then Phil responds.] A continuous evolution yes, but a continuous evolution of thought as well. If we consider consciousness as some sort of measure of intelligence, then research from archeology also indicates that while the word continuous is a bit strong, there is a progression through the evolution of species that goes from minimum awareness and response capabilities to current human capability. The archeologist Steven Mithen noted in his 1996 book on the prehistory of the mind that there were continuous oscillations between specialized and generalized types of intelligence throughout the evolution of the mind. Thus consciousness varied from focused, specialized capability to broad functioning—as we describe our current capability. In explaining this variability throughout evolution Mithen says, “The answer is that a switch between specialized and generalized systems is the only way for a complex phenomenon to arise, whether it is a jet engine, a computer program or the human mind.” (Mithen, 1996, p. 212)

[Sophia, the spiritualist, has been sitting quietly in an active-listening mode. The host smiles in her direction and she begins to speak softly.] “All consciousness originates with *All That Is*, what on the earth plane we refer to as God. All realms of creation spring from this ultimate source, an infinite gestalt of consciousness whose immensity and complexity elude mortal comprehension.” (Ramon, 1997, p. 42) It carries the human life,

the human species, the human world as but one tiny facet of Its totality. “It creates and sustains [our] world as one unique and precious crucible of activity through which It fulfills Its unquenchable passion for learning and growth.” (Ramon, 1997, p. 43) The narrowing of this consciousness is not achieved in one leap. A myriad of gradations of consciousness, each coming into finer focus, emanate from All That Is, gradually narrowing into discrete realms of experience.

The host human consciousness is the energized pool of intent from which all human experience springs. It spawns a spectrum of activity by splintering into smaller bodies of consciousness carrying distinct purposes and intents, with each division then further branching into ever finer strands of potential. The individual human consciousness (a filament, or fragment, of the Source) is an offshoot of the *higher self*, which in turn is an offshoot of a still greater family of consciousness, which are vast fields of intent dividing the host human consciousness into the broad themes of human life. “Each family of consciousness plays a role in the organization, operation, cultural evolution, and stability of human society”. (Ramon, 1997, p. 48)

At birth, consciousness is anchored securely to matter, to the body. The waking consciousness is focused primarily on the journey through life, on the protection and pleasure of the individual, but just below the surface, and periodically bubbling up into the waking conscious are the fundamental, ultimate questions humans need to ask: Why was I born? What is the meaning of my life? What makes it all worthwhile? How did the Universe originate?

For while each unit of matter is seen as a discrete individualized entity, it is simultaneously embedded within a larger system through which it expresses its meaning.

(Ramon, 1997, p. 116). Just as each of our cells and organs fulfills its purpose through participation in the greater complexity of our bodies, with rare exception we all find our deepest meaning and satisfaction through relationships with others. Through joining with others, blending bodies, hearts, minds and souls, the aching solitude of fragmentary consciousness demands expansion into a greater fullness of being. Each blending of two or more human fragments builds an eclectic gestalt of consciousness holding a power and richness no solitary soul can realize.

In seeking those answers, consciousness may also lead to beliefs concerning morality, goodness, aesthetics, etc. Quoting Stanislav Grof, “Spirituality is private matter reflecting on the relationship between the individual and the cosmos.” (Laszlo, Grof and Russell, 1999, 37) Thus we can consider consciousness, particularly the higher interpretation of consciousness, as the means by which each individual in human form seeks, and fulfills, their spirituality needs.

[Neil responds.] With all due respect, Sophia, I am not sure I understand what you just said. I don’t know whether it is right or wrong because I cannot conceive how we as scientists would ever be able to test its validity, or even be able to structure a basic principle or theory. But we all have experienced the magnificence and awe of the universe and most everyone has wondered about the questions you suggest. Thus, I agree our experience as humans matches your description, but our science cannot provide the evidence we desire ... at least not yet. However, your beliefs may well be consistent with what we know in science, yet lie in a realm beyond science. Science sees consciousness as the capability of the physical body to sense and respond to external stimuli. Consciousness as seen from the mind viewpoint consists of neuronal firing

patterns created and stored by chemical reactions and states. Although we do not know the details, most scientists believe that nothing more is needed. Given these perspectives, science does not and cannot consider the spirit, at least it cannot do that and stay within the realm of the scientific approach that has provided the current foundation for what knowledge science currently has.

Why Consciousness?

[Harry speaks.] My thanks to all of you. We certainly did not develop a common understanding of what consciousness is, though we did surface a number of fascinating perspectives of what it may be. If the *what* is hard to agree on, how much more difficult is the *why*? Sophia, let's start with you this time. Why consciousness?

[Sophia responds.] The uniqueness of human life derives from its emphasis on consciousness. The purpose of human life is to “emphasize the fruits of consciousness, the power of reason and symbolic manipulation; to rise above the limitations of flesh; to make the world [our] own.” (Ramon, 1997, p. 18) To the extent that we understand and utilize the various aspects of consciousness, we learn to understand our own reality, and our conscious self becomes truly conscious. (Roberts, 1972, p. 283)

Put in simple terms for Neil, consciousness provides the vehicle to learning and growing, the ultimate intent of All That Is. In the physical system, consciousness is wedded to matter, causing the fundamental quality of physical life, the duality of a spiritual focus and a material focus. Consciousness is the medium of growth for the physical system to press ideas into form. Please understand that consciousness precedes and is reflected in form. Don't be mistaken, consciousness comes first. (Ramon, 1997, p. 116)

Nothing simply exists; all life has a purpose. Every organism is driven by a search for fulfillment of its potential. This powerful drive for fulfillment is fed into each creature in the energetic streams continuously flowing from every species' host consciousness. (Ramon, 1997, p. 109) Human consciousness is always founded on an insistent, driving propulsion toward happiness. Happiness itself derives from many sources: vibrant physical health, meaningful work, warm and loving relationships, community participation, and so on. Neil, Sy, Harry, Phil ... each of us would describe happiness differently. Each person focuses the search for happiness on one or another of these aspects, with the others serving as background to the primary life task.

“Human consciousness is unique to the physical dimension – for symbols and tools are unknown in the nonphysical realms ... the ultimate source of human consciousness is the vast host human consciousness, which sprouts only on the branch of physically based experience.” [Ramon, 1997, p. 43] We talked about this earlier.

[Harry speaks.] Yes, I do recall that. Phil, from the viewpoint of philosophy, why consciousness?

[Phil dives in.] Thanks, Harry, and thanks Sophia, I appreciate your words on personal happiness. Philosophically we have found three possible ways to explain the existence of a physical brain and our subjective experiences, or what we think of as consciousness. These are historically known as Dualism, Materialism and Mysterianism. Descartes was the philosopher who made the famous statement “I think, therefore I am.” He believed that the conscious realm (mind) existed on a non-physical level and was as basic as the physical world—but that the two were separate entities, although they could intersect in some unknown way. At that time the mind was viewed as more basic than

matter since it was composed of thoughts, feelings and images, all without physical extent. In the 18th century, Bishop Berkeley took this to an even greater limit by postulating his idealism, which simply eliminated the material world. While today this might seem ridiculous, realize that many philosophers accepted his idealism, including Hegel, Schopenhaur, Husserl and Bergson. Even John Stuart Mill, Bertrand Russel and A. J. Ayer thought that the material world had no reality. (Papineau and Selina, 2000, pp. 26-35)

[Sy interrupts Phil.] Although you are right Phil, don't forget that during the past century with the behaviorist movement we have pretty much rejected idealism.

[Harry jumps in.] And we have now pretty much rejected pure behaviorism as well.

[Neil responds quickly.] Don't forget that the materialist view is that the mind has only a material existence and that nothing else is needed to explain consciousness. This is the working assumption of all scientists and at least within current neuroscientific research has not been proved wrong. All this said, from an evolutionary view, consciousness is a necessary result of evolutionary fitness for survival and its corollary that life evolves toward increased complexity. An organism that is not aware of its surroundings cannot survive. Primary consciousness is that awareness. Eric Chaisson, a current research professor in physics, astronomy and education, notes that:

“It is not by struggling against cosmic conditions that the organism develops and maintains its place; on the contrary, it is by adaptation to, and agreement with, these conditions. So the living being does not form an exception to the great natural harmony which makes things adapt to one another: it breaks no concord; it is neither in contradiction to nor struggling against general cosmic forces; far from that, it forms a member of the universal concert of things, and the life of the animal, for example, is only a fragment of the total life of the universe” (Chaisson, 2001, pp. 131-132)

[Harry interjects.] I wonder about the similarity, Neil, between what the physicist Chaisson just said and what Sophia was talking about. Perhaps we can come back to this later. Getting back to *why consciousness*, Phil?

[Phil speaks.] Some philosophers, Daniel Dennett for example, explain away the problem of consciousness by maintaining that its existence is a mirage and a false perception. (Gazzaniga, 1997, pp. 182-184) Other philosophers, referring to higher order consciousness, believe that it gives us our rationality and ability to express free will. They think that without this level of consciousness, man would be no better than the lower animals.

The Consciousness of Animals

[Harry summarizes.] In summary, consciousness seems to be for the purpose of life fulfillment, survival of the species, and the ultimate expression of all that is. We've brought in the concept of animals several times in this dialogue. Are animals conscious? Anyone.

[Neil takes up the gauntlet.] Current research on consciousness by Edelman suggests that some of the higher animals have what we call primary consciousness. That is, they are aware of the present, can construct some sort of mental scene but have only a limited ability to construct meaning and no true language. (Edelman and Tononi, 2000, p. 102) However, they do not have a language of the same complexity as humans and do not seem to be able to recognize and connect the past, the present and the future, as humans do. It is worth noting that there is considerable evidence that gorillas and chimpanzees *do* have the capability to understand and use some sort of language.

(Allman, 1999, p. 200) Interestingly, these same animals have similar brain structures to humans. Porpoises are also famous for their intelligence and ability to communicate.

[Phil begins when there is a pause.] The philosopher Colin McGinn takes a different perspective when he interprets consciousness as the phenomenon of sentience, feeling, seeing, and the other senses. If one omits self-consciousness, then many animals, from bats, birds, elephants and crocodiles possess consciousness. (McGinn, 1999, p.63) Clearly the question of consciousness in animals is dependent upon the interpretation of consciousness. And as we have just discussed, there are many of those around.

[Sophia comes in firmly.] Yes, animals have consciousness, and plants have consciousness, and all forms of life have consciousness. In a sense, all earthy life is a hypothesis using consciousness. The host consciousness animating each species poses the question: Can this creature, with its innate capabilities and limitations, find fulfillment within the earth system? Darwinian theory of evolution is a reasonable hypothesis given the fossil record of increasing organismic sophistication, your experience of time as a linear trickle of moments, and scientific rejection of any Intelligence guiding the universe. Gaps in the theory are evident enough, the “missing links” and, of course, lower species continue to cover the globe, despite their primordial ancestors’ alleged evolution into higher species. However, it is incorrect.

At the level of the host consciousness, time is not a linear trickle but a “simultaneous whirl of infinite probabilities.” The design and consciousness of each species hovers in eternal viability above the earth system; a species is “impressed” into physicality when earth conditions offer reasonable potential for fulfillment. The earth itself is an organism passing through lengthy cycles of greater and lesser density, varying

molecular composition of air and bedrock, ice ages and molten fire. As the earth passes through its cycles, ecological “windows” open up to sustain certain types of plants and animals; the appropriate species are then “impressed” into form.

[Neil responds.] Sophia, I think I hear what you are saying and I agree there are problems with the theory of evolution, but your strong statement that it is wrong, coupled with your proposed replacement with no evidence to support it, leaves me, as a scientist, no alternative but to disagree.

Universal Consciousness

[Harry leans in and scans the group.] Let’s take this exchange one step further, into the realm Sophia has introduced. Is there substance to the concept of universal consciousness?

[Sophia nods tentatively. As she pauses, the psychologist Sy looks eagerly at the host, Harry, and leans forward to speak. Harry nods. Sy speaks.] The Jungian analyst Dean Frantz proposed a fascinating possibility. He tells the story of Jung, who had two dreams, one came after he had an illness that almost killed him and the other three years before he died. I recall his exact words: “The aim of both these dreams is to effect a reversal of the relationship between ego-consciousness and the unconscious as the generator of the empirical personality.” This reversal suggests that in the opinions of the ‘other side’ our unconscious existence is the real one and our conscious world is a kind of illusion. (Frank, Roze and Connolly, 2000, p.142) The idea that there may exist a broader, universal consciousness that we are all tied into seems to be a very comfortable, intuitive feeling for many people.

And recall that as the former professor from Johns Hopkins and medical doctor, Stanislav Grof notes, Jung also believed that our psyches are deeply affected by a collective unconscious that provides access to a warehouse of memories that covers all human experience since the beginning of time. (Grof, 1992, p.123)

[Neil jumps in to everyone's surprise.] While most people think that scientists would ridicule the idea of a universal consciousness, this is not entirely true. Most, but not all, scientists, when they think seriously about the subject, would say that universal consciousness may or may not exist, but it would definitely be outside the realm of scientific inquiry. However, research over the past five decades has led a number of researchers to conclude that the existence of a universal consciousness is possible in the sense that it may lie beyond current scientific knowledge, but it may not.

We talked about neurons and their connections as being the building blocks of consciousness in that they are part of the physical body but take on aspects of the mind. Referring to these connections, or synaptic junctions, the neuroscientist J. Hobson says:

... the upshot of this set of neuromodulatory properties is that consciousness can be differentiated automatically, reliably, and consistently so as to resonate harmoniously with the Cosmos to which my youthful brain-mind compared it on that starry night in Maine 50 years ago. These features of the brain suggest that the isomorphism of the brain-mind and the Cosmos is more than an analogy. It is an intimately synchronous interaction.” (Hobson, 1999, p. 75)

Another example is where a physics professor and a historian of science, both from George Mason University, have recently written a book entitled, *The Non-Local Universe the New Physics and Matters of the Mind*, in which they explore some well-known physics experiments -- the famous EPR (Nadeau and Kafatos, 1999, pp. 67-69) results and Bell's Theorem (Stenger, 1995, pp. 110-126) -- and conclude that the universe can communicate instantaneously and non-locally within itself. They see the universe as

a seamlessly interactive system that evolves to higher levels of complexity, and the laws are emergent properties of this evolution. This leads to the conclusion that the universe is a single whole and that this whole exists within all of its parts. Since consciousness represents self-reflective awareness and since consciousness is an emergent property of the brain, they offer the possibility that, philosophically [Neil nods at Sy], the universe may be conscious (Nadeau and Kafatos, 1999, pp. 197-8). Another physicist, Amit Goswami, wrote a book in 1993 entitled *The Self-Aware Universe*—about how consciousness creates the material world. Thus, since the discovery of quantum mechanics with its uncertainties and continuing ambiguities in interpretation, science has become more tolerant to possibilities that don't contradict current well-established evidence.

[Sophia takes a breath as if to start, but Phil begins speaking first.] The single whole, and the whole of each of its parts ... let's think of that in terms of humans, with each of us a compounded group of lives.

[Phil notices Sophia's opened mouth, and grimaces, but Sophia motions for him to continue.] Our bodies are made up of cells, and our cells are made of smaller particles that are also alive, or simpler life forms, called molecules, that create the proteins and living cells that in turn create the human body. Continuing with turtles all the way down [Sy laughs] molecules are made up of smaller particles, or atoms, and atoms are made up of neutrons, protons and electrons. Neutrons and protons are made up of quarks, and so on and so on until we reach an infinite level that is the basic foundation of matter and life in the Universe. (Zwang, 1995, pp. 277-283) But that's not the end of the story. We humans are the most complex and advanced form of life as we know it. Over the past

few years, with the advancement in communication and information technology, we've started to connect and interact in new ways. Imagine for a moment the mental and emotional bonding process that is underway, and imagine what we as humanity will create as we finally unite together. From there it is turtles all the way up! [He smiles at Sy.] One conscious connected Earth, one conscious connected solar system, one conscious connected galaxy, one conscious connected universe ...

[Sophia can no longer contain herself.] Exactly! Only what is occurring goes even deeper. Our very souls are connected in a universal oneness. Harry, this dialogue began with you asking if there was a universal consciousness. The responses my honored colleagues have provided scream with the answer, yes there is a universal consciousness. And, it is turtles all the way down, from superconsciousness to subconsciousness.

[Phil leans forward.] Many great students of knowledge have rightly concluded that there are two basic ways of knowing. As Ken Wilber has noted "...of the vast number of scientists, philosophers, psychologists, and theologians who have fully and deeply understood these two modes of knowing, their unmistakable and unanimous conclusion is that the nondual mode alone is capable of giving that 'knowledge of reality'." (Wilber, 1999, p.82). And it this non-duality of reality that is exactly what the quantum physicists have found. Neither objective reality nor subjective reality are correct. An analogy would be seeing yourself in the mirror and perceiving there are two of you. There can be only one reality and that is the experience of reality. Sir James Jeans came to the conclusion that,

"When we view ourselves in space and time, our consciousnesses are obviously the separate individuals of a particle-nature, but when we pass beyond space and time, they may perhaps form ingredients of a single continuous stream of life. As it is with light and electricity, so it may be with life: the phenomena may be

individuals carrying on separate existences in space and time, while in the deeper reality beyond space and time we may all be members of one body.” (Cummins and Linscott, 1969, p.395)

The quantum physicist Erwin Schroedinger believed that reality is “essentially eternal and unchangeable and numerically *one* in all men, nay in all sensitive beings’ inconceivable as it seems to ordinary reason, you—and all other conscious beings as such—are all in all. Hence this life of yours which you are living is not merely a piece of the entire existence, but is in a certain sense the *whole*...” (Schroedinger, 1964, p.21)

[Neil jumps in.] I am glad that you brought up these physicists, and that they were well-known, well-grounded physicists. Many scientists are aware that the possibility of a universal consciousness or “oneness” exists and, if true, it would offer a wonderful explanation for so many things that many of us feel and experience. However, there is still much work to be done in all areas that relate to this idea. It can potentially answer so many questions, and yet seems to lie at the intersection of science, philosophy, religion and spirituality. How do we even learn a common language so we can talk to each other, much less collaborate and integrate our knowledge to move toward a solution, or understanding?

Altered States of Consciousness

[Harry speaks.] Well, Neil, thanks for giving all of us that small challenge. [As all smile, Harry looks down at his notes for the next question.] Sy, earlier you expressed the interest of those in the field of psychology in studying the ways an individual can become aware, whether it be drug-induced or self-induced or externally-induced by the environment. We certainly feel and experience many different things as humans. Those

feelings and experiences are often called altered states of consciousness. Are these feelings and experiences real?

[Sy eagerly dives in.] Harry, they are certainly real, though not always natural. The use of drugs to alter our state of consciousness has been used by many societies for centuries. The “magic mushroom” of Mexico and Central America has a longer history than any other mind-altering plant, dating back well before 500 B.C. For example both teonanactl and peyote gave users visions that they would live or die in war, be devoured by wild beasts or die a quiet death. After recovery, the users would discuss these visions with other users. More recently, as most of you may remember, psychedelic experiences became popular during the 60s and there was a great deal of experimentation, particularly with LSD and a wide range of chemical agents—mescaline, tryptamines, MDMA, etc. They all produced the same basic effect: changes in sensory perception, particularly visual perception. Many hallucinations were quite fascinating in that the mind could influence the vision. For example,

...Each pore in my companions’ skin was now visible, and every facial expression was laden with significance. As I looked on each person’s face I empathized with the exact emotion I thought I saw expressed. At that point, the distortions became more extreme. If I focused upon my forefinger, it would swell. If I concluded that the finger was unimportant, it literally shrank into insignificance.” (Snyder, 1986, p. 180)

Another interesting phenomenon is synesthesia, where the senses become transmuted, so that touch is experienced as sound and sound experienced as vision, etc. Still another effect of drugs on the workings of consciousness is the change in the user’s sense of self. As Snyder describes, “Boundaries between self and nonself evaporate, giving rise to a serene sense of being at one with the universe. I recall muttering to myself again and

again, ‘All is one, all is one.’” (Snyder, 1986, p. 181) Some drugs seem to have the effect of revealing the glory, the infinite and oneness of the universe to us. It almost takes us to the experience of the infinite mind and universal consciousness of the universe that Sophia and even Neil were talking about.

[Neil responds.] Altered states of consciousness deal with conscious control of consciousness. All self-directed methods of controlling consciousness during waking share the basic principles of muscular relaxation, reduction of respiratory rate, and introduction of peaceful mental content. The net effect is to move the brain-mind toward the edge of sleep but not quite over it. At that interface, a wide variety of altered states of consciousness can be experienced. The subjective benefits of these practices may depend more on their shared physiology than upon the specific mystiques that inform and are supported by them.” (Hobson, 1999, p. 49)

[Sy speaks.] I’d like to build on that. The very act of sleep itself is an alternate reality. As we glide from wakefulness through to sleep, each of us passes through various conditions of consciousness. First, there is the inward turn of consciousness away from physical data, from worries and concerns of the day. “Then there is an undifferentiated level between wakefulness and sleep where your consciousness floats. This is an expansive state as thoughts generated from the unconscious float in and out. Then there is an active state of pseudodreaming, where the mind busies itself with physical concerns that have managed to cling through the first two stages. If we sleep through this intense but brief stage, another quiet undifferentiated layer follows where the body is fairly quiet, marked by voices, conversations, or images. One or another of these stimuli are followed into a deeper level of consciousness, and form into light dreams. At

some point during this stage, the sleeper will go into a deeply protected area of sleep where experiences are out of all context to time and space as we know it. These are areas of pure feeling or knowing, and disconnected from words or images. Then we return toward physical reality in an area marked as REM sleep, where physically oriented dream productions will be created. The cycle is then repeated. (Roberts, 1972, p. 250-1) These stages of consciousness are all a part of our own reality, where we can stand aside from our own experiences and examine them with a much better perspective. We can prepare questions or problems, suggesting that they be solved for us in the sleep state.

[Sophia enters the exchange.] Sy, what you call physical and mental altered states of consciousness are actually the natural state of the spiritual consciousness. During our dreams we are in contact with Speakers, or spiritual helpers, who help us correlate and understand this multidimensional existence of ours, and bring as much as possible of it to our conscious attention. “Only by learning to feel, or sense, or intuitively perceive the depths of [our] own experience can [we] glimpse the nature of All That Is.” (Roberts, 1972, p. 251) In our dreams we can speak with distant friends, or convey important messages that cannot be conveyed verbally. We can direct the healing of our body, and direct our attention on particular conscious beneficial goals. These other stages of consciousness are creating their own realities even as we create our own. Realities are the byproducts of consciousness.

[Harry looks around and raises his hand slightly. He then thinks for a few seconds and begins with a question.] How many of you are familiar with hypnosis? [All nod.] Well, do you believe it is an altered state or is the whole phenomenon just a fake? [After a few minutes of mumbling and various comments indicating a wide variety of

beliefs and interpretations, Harry stops the chatter and decides he needs to address the question personally.] You know, I have been under hypnosis and have always believed it was legitimate, while realizing that many people debunk it. A recent article in *Scientific American* titled “The Truth and the Hype of Hypnosis” by Michael Nash sheds some light on this issue.

Nash says that during hypnosis the brain suspends its attempt to authenticate incoming sensing information, thus allowing hypnosis to provide some medical benefits, controlling chronic pain, countering anxiety and obesity, and helping patients recover faster from outpatient surgery. His belief is that hypnosis has been scientifically validated, although some people are more hypnotizable than others. Nash disputes the popular folklore that patients under hypnosis are automatons. Rather, they “... are active problem solvers who incorporate their moral and cultural ideas into their behavior while remaining exquisitely responsive to the expectations expressed by the experimenter.” (Nash, 2001, p. 49) Thus, it appears that hypnosis would be a particular state of consciousness.

Consciousness Revolution Underway

[Harry looks inquisitively at his guests. There are no immediate comments. After pondering a moment, Harry quietly moves on to the final question.] Is there really a consciousness revolution underway?

[Sy and Sophia both lean forward as if to quickly provide their responses before the others. Harry looks at Sophia and nods, thinking to himself that a spiritualist must certainly have something to say about this question.]

[Sophia begins.] We spoke earlier of the connectivity of all life and a universal consciousness. For five thousand years we have been preparing for the next major step in our evolutionary process, a transition into the next global or planetary level. The new millennium is ushering in this transition.

Human beings will bond into a single meta-being, a “more comprehensive organization of the human consciousness at a collective level,” (Nelson, 1997, p. xiii) finding group consciousness without losing our individual consciousness, connecting with our soul-selves.

The spiritualist Lyssa Royal calls this process the journey of consciousness toward wholeness. At the level of atoms and molecules, awareness is a point, physical matter. At the level of plants and animals, awareness is a line and there is development of group or species identity. At the human level, there is an ego with linear perceptions of time, loss of group identity and development of individual identity, with the ability to remember the past and cognize the future while retaining present awareness. Now we move into the world of metahumans, the world of superconsciousness, with reintegration of group identity without loss of individual identity, with cyclical and fluid perceptions of time, with the ability to perceive multidimensional and multidensity realities. There are three more stages beyond this one that we are currently entering. The fifth stage is that where spirit guides and masters reside, with experiential awareness of “I” as a group identity. This is a pure energy state, not bound by linear time. The sixth stage is where a conscious frequency band unto itself might manifest as group consciousness or individualized personalities that express the basic qualities of limitlessness and unified consciousness. This is what is often called the Christ consciousness, where there is total

remembrance and one takes responsibility for the whole rather than the self. (Royal, 1997, pp. 2-5) The final stage represents a holistic system of consciousness, where awareness is a multidimensional experience, something like a shattered mirror whose pieces have been reassembled into near-perfect condition, yet still remember the experience of the past fragmentation. This is the frequency of total oneness or integration, providing the current for the natural flow of all toward integration, leading the way to the next octave of experience. (Royal, 1997, p. 6)

[Sy, after waiting patiently for Sophia to pause, finally sees his chance and jumps into the breach.] We need to take a minute to understand the different ways that the question can be answered. From a psychological view I would say that the question is asking if the work in the various disciplines that are interested in understanding what consciousness is and how it affects our lives is increasing and are new revolutionary ideas spouting forth. Within that interpretation I would say no. While we are increasing our understanding of consciousness more and more as our investigations progress, we see no great psychological breakthroughs on the horizon. In 1997 Robert Solso edited a book titled *Mind and Brain Sciences in the 21st Century* which addressed the current and future state of the art in the psychology of consciousness. While of course opinions varied greatly, Solso sums it up pretty well as he first quotes Tulving “The richness of the literature is largely attributable to the fact that just about anything that has something to do with the behavior of organisms and cognitive phenomena of human beings has been seen to be related to consciousness.” Solso then comments, “Nevertheless, consciousness remains a slippery concept at the end of the 20th century.” (Solso, 1997, p307) Given that

view, many scholars believe that the *truth* is just around the corner. All this said, psychology is vitally interested in consciousness and there is a mild, but real, revolution.

Now, taking a different perspective on the question, consider the possibility of a ground swell throughout the country, or perhaps the world, where more and more people are becoming aware and conscious of who we are as a species and the dangers, responsibilities and opportunities we have to raise our consciousness and create a better future for our children and for all life forms. If there is a ground swell, how do we put our own life in alignment with it? These were the types of questions addressed by three noted authors and students of consciousness: Ervin Laszlo, Stanislav Grof and Peter Russel in their recent book *The Consciousness Revolution*. In considering the need for a consciousness revolution Laszlo notes that: “On all sides we are threatened with a problem, on all sides we have to adapt—and that means changing the dominant consciousness. This is the root of the problem. We have to start thinking differently, feeling differently, and relating to each other and to nature in different ways.” Laszlo believes that we are witnessing changes in people’s thinking that foretell a major consciousness revolution. Grof feels that we are seeing the emergence of spirituality of a universal and nondenominational nature, characterized by, and awareness of, the unity of all creation and a strong connection to other people, other species, nature and the entire cosmos. Russell says that despite our great material wealth, our deeper, spiritual needs are unsatisfied, resulting in depression, insecurity and being unloved. These are the driving forces behind the need to raise consciousness. (Laszlo, Grof, and Russell, 1999, page 3-5)

To summarize, I think it is fair to say that if we accept the possibility of a mind of humanity, a noosphere as Teilhard de Chardin would call it, or perhaps Jung's collective unconscious, existing within and around all of us, then we may now be seeing such a rise in consciousness in more than the historic few who experienced it in the past. Raising consciousness raises awareness, and with awareness comes possibilities that were heretofore excluded from the mind. Examples being that death is not the final end of consciousness, it may be just an important transition to another form of existence.

Another interesting possibility is for a completely new model of reality to emerge that includes consciousness as one of its basic aspects, on an equal footing with time, space, energy and matter. As Neil mentioned earlier, it seems to be possible for a universal consciousness to exist. If it does, then our current consciousness revolution could be an indicator of where we are in our evolutionary sequence and where we are going relative to the universe at large. In any case, many people feel that without a rapid raising of our consciousness, we may not be able to survive our own self-destruction. Grof has identified many methods that can facilitate such a transformation of consciousness.

These include both ancient and modern. Consider near-death experiences, spontaneous mystical states, psychedelic experiences, UFO abductions and spontaneous psychospiritual crises such as Kundalini awakening. (Laszlo, Grof, Russell, 1999, p. 61)

As Russel says: "I think this is what the consciousness revolution is all about. We are rediscovering that eternal wisdom for ourselves in contemporary terms, and making it relevant to a world in which science and reason prevail." (Laszlo, Grof, Russel, 1999, p. 36)

[Neil speaks directly to Harry.] Harry, I would like to remind everyone of the potential impact that some of the newest technologies and tools could have on creating such a universal consciousness. The Internet, fiber optic cables, satellites, video conferencing, white boards, teams, dialogue, ba spaces, (Krogh, Ichijo and Nonaka, 2000, pp. 178-186), etc. all have the effects of shortening distance, speeding up time and, most importantly of all, homogenizing language, culture and values. The result may be the coming together of minds, the coalescing of understanding, and the recognition of the common thread of mankind and all life forms. Such a consilience would most assuredly open the door to a universal consciousness revolution.

[Sophia sighs.] Amen.

Closing Comments

[Air time for the show is growing short. Harry glances at his watch, then speaks.] I don't believe we can draw conclusions ... there are far too many opinions and ideas to do so at this point in time. But there is time for each of you to share a parting thought on this thing called consciousness. Sy?

[Sy responds.] Considering our research in the psychology of consciousness, it seems clear that as we learn more about the biological aspects of consciousness as well as the psychological characteristics of the mind we become more and more able to help those individuals with physical and mental disorders and perhaps increase our ability to understand and even offer the opportunity for people to enter altered states of consciousness to enhance their own well-being. We may also develop an improved understanding of intuition and how the unconscious mind supports conscious mental

activities, and by doing so not only raise our consciousness, but become more capable in decision-making and understanding the world around us.

[Harry speaks.] Phil?

[Phil responds.] Let me tell you an interesting characteristic of philosophers. They only are interested in and study unsolvable problems. The number of differing opinions on consciousness offered by major extant philosophers is quite high. Philosophically speaking this is an excellent situation, because it provides differing views that can challenge each other and, through a process of dialogue and rational thought, arrive at generic conclusions. But recognize that it is typically science that through empirical testing and the generation of theories and laws ends up deciding the details. Thus as problems get solved, philosophy turns them over to science and other fields. In the case of consciousness, philosophers, psychologists, scientists and spiritualists all need to work both together and independently so we can get a better handle on what consciousness it and its meaning for mankind.

[Harry speaks.] Sophia?

[Sophia responds.] Harry, the conscious mind is a phenomenon, not a thing. “It is ever-changing. It can be concentrated or turned by the ego in literally endless directions. It can view outward reality or turn inward, observing its own contents.” (Roberts, 1974, p. 33) But it is far more than a tool for perceiving and learning. It is the essence of our existence. Our spirits were born in flesh to “enrich a marvelous area of sense awareness, to feel energy made into corporeal form.” (Roberts, 1974. pp. 26-27) And above all we are here to -- through the joy, strength and vitality that is within us – to

create the spirit as faithfully and beautifully as we can in flesh to aid in the great expansion of consciousness.

[Neil steps up to the fore before Harry can call his name. Looking directly at Sophia, he smiles and speaks.] Sophia, what you believe may well be true. Only the future will tell. From a scientific view, what we “know” at this time is that consciousness is an emergent characteristic from the evolution of the species and that it is an important, or perhaps even critical, mechanism for survival. While we are far from understanding its consequences and inner workings, we scientists firmly believe that when all is said and done, however magnificent consciousness is – and we all believe it is magnificent – we will find that it is no more than, and in fact need be no more than, atoms, molecules and energy taking on fantastically complex interactions to achieve the wonders that you just addressed, and hopefully to meet the dreams and desires of all of us. We must not be limited by our outdated beliefs about Newtonian determinism being representative of current science. In fact, science is not limited to determinism and material particles, that together with light and other forms of energy have shown themselves to having many more possibilities than any of us can imagine.

[Harry and Sy, and even Phil, are speechless. Sophia is smiling. After an honorable few seconds of silence, Harry speaks.] By all appearances, science and spirituality are finally coming full circle. Perhaps this is the best note on which to end.

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